IMPACT OF SOCIAL/TRADITIONAL MEDIA ON POLITICAL POLARIZATION

SHUBH GOYAL

Abstract

Social media platforms like Facebook and Twitter track their users' online behavior and then use machine learning to show the users highly customized content to maximize the time they spend on the platform. If a user seems to like a particular kind of video, the platform will show them more of these videos. Such social media platforms are often referred to as *echo chambers* because the users only see content they like or agree with and may get wholly insulated from other points of view. Most prominently highlighted by former President Obama, there have been concerns that social media echo chambers are playing a significant role in polarizing our society.

In this project, we studied the impact of social and traditional media on political polarization in society via simulations. In particular, we wanted to understand what happens when a population with normally-distributed unipolar political views is exposed to social/traditional media platforms espousing very different types of political views. In our simulation framework, an individual's political *shade* changes as a result of their encounters (e.g., reading an article or watching a video) with social and traditional media. An individual's political shade is a value between 0 and 10, with the range representing the entire spectrum of political views and its ends representing extreme-left and extreme-right views, respectively. Each individual has an immutable *core* shade and an *acquired* shade that changes with the individual's interactions with social/traditional media. The overall shade of an individual is a weighted combination of their core and acquired shades. Each interaction with social/traditional media causes the individual's acquired shade to move very slightly towards the political shade that the media interaction is espousing. A simulation consists of each individual in a population going through a specified number of social/traditional media interactions. Different simulations have social/traditional media of different types (e.g., unipolar, bipolar, echo chambers, etc.). The framework allows for the simulation of *addictive* echo chambers that cause their users to stop interactions with any other media. Also, the framework allows the echo chambers to show content that is either strictly within a tight range of the user's shade or exposes the user to progressively more extreme views in the direction they lean towards.

Our simulations revealed that the political shades in a population are deeply affected by the political shades espoused in the media. If the media is primarily unipolar, the political shades in the population ultimately become unipolar. On the other hand, if the media is bipolar, the population ultimately becomes bipolar in its political shades. Interestingly, the simulations revealed that social media *echo chambers* can undo the polarizing impact of partisan traditional media if the echo chambers strictly show content that matches the current political shade of the user. However, if social media echo chambers expose the users to extreme political views, a population with initially unipolar distribution of shades will ultimately look like two different populations with very different political centers.

There have been widespread concerns regarding the divisive role social media platforms currently play in the US. There have also been significant concerns that these platforms may be unfairly censoring political views they disagree with. Accordingly, there have been calls to regulate social media platforms in the US by modifying Section 230 of the Communications Decency Act of 1996. Section 230 protects Internet platforms against any liability for the content posted on the platform by their users. However, many experts have pointed out the critical role Section 230 plays in promoting free speech and innovation on the Internet by protecting smaller platforms from frivolous litigation. Further, the ability of social media platforms to promote/demote their content in a customized manner seems to be protected by the First Amendment to the US constitution (and not Section 230). Therefore, we think that various concerns regarding the role of social media platforms can only be addressed by framing strong consumer protection laws that will force social media platforms to inform users about the information collected regarding their online behavior and how this information determines the content a user sees on the platform. This will allow a user to make an informed decision regarding using that platform.

This research was conducted under the guidance of Dr. Mukul Goyal (Associated Professor, Computer Science, University of Wisconsin Milwaukee), who is also the author's father. The details of this research can be read at:
https://github.com/shubh53211/political-shades